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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/700,086	11/03/2003	James Lee Hendrix	TWI-20310	2803

28584 7590 11/30/2005
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EXAMINER


ALLAWI, ALI

ART UNIT PAPER NUMBER

2877

DATE MAILED: 11/30/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/700,086	Applicant(s) HENDRIX ET AL. 	
	Examiner ALI ALLAWI	Art Unit 2877	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 November 2003.
 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
 5) ☐ Claim(s) _____ is/are allowed.
 6) ☒ Claim(s) 1-23 is/are rejected.
 7) ☐ Claim(s) _____ is/are objected to.
 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☐ All b) ☐ Some * c) ☐ None of:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
 * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
 Paper No(s)/Mail Date See Office Action.
 4) ☐ Interview Summary (PTO-413)
 Paper No(s)/Mail Date. _____.
 5) ☐ Notice of Informal Patent Application (PTO-152)
 6) ☐ Other: _____.

DETAILED ACTION

Information Disclosure Statement

The information disclosure statements filed on 20 January 2004, 05 February 2004, 08 October 2004 have been entered and reference considered by the examiner.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-3, 5, 9-10, and 12 are rejected under 35 U.S.C. 102(b) as being anticipated by Zarling et al. (5,736,410)

In regards to claim 1, Zarling et al. discloses a device for optically inspecting and evaluating a sample comprising a first, second, and third illumination sources emitting light within a first, a second, and a third spectrum, in which the third is between the first and the second. Zarling et al. further discloses components for combining the light emitted by the illumination sources to produce a probe beam output and one or more optical components for directing the beam and a detector for analyzing the reflected probe beam. (See Figure 6, components '85a, 85b, 85c, 87 a-c, 88 a-c, 90, 92, 95, 97, 100, 82, 102, 125 a-c')

In regards to claims 2 and 3, Zarling et al. further discloses one or more optical components for combining the light emitted by the illumination sources comprising a fiber bundle with an input end subdivided to receive light from the illumination sources and include a series of optical fibers interleaved within the fiber bundle. (See Figure 6, '88 a-c')

In regards to claim 5, Zarling et al. further discloses illumination sources that are light emitting diodes. (See Figure 6 '85 a-c')

In regards to claim 8, Zarling et al. discloses a method for optically inspecting and evaluating a sample which comprises using a first, second, and third illumination sources to generate light within three spectrums respectively where in the third spectrum is between the first and second spectra. Zarling further discloses combining the light emitted by the first, second and third illumination sources to produce a probe beam output to be directed and reflected by a sample, and analyzing the reflected probe beam. (See Col. 5, lines 24-43, Figure 6, components '85a, 85b, 85c, 87 a-c, 88 a-c, 90, 92, 95, 97, 100, 82, 102, 125 a-c')

In regards to claims 9 and 10, Zarling et al. further discloses one or more optical components for combining the light emitted by the illumination sources comprising a fiber bundle with an input end subdivided to receive light from the illumination sources and include a series of optical fibers interleaved within the fiber bundle. (See Figure 6, '88 a-c')

In regards to claim 12, Zarling et al. further discloses illumination sources that are light emitting diodes. (See Figure 6 '85 a-c')

Claims 1, 5, 8, and 12 are rejected under 35 U.S.C. 102(e) as being anticipated by Miller et al. (2002/0007080)

In regards to claim 1, Miller et al. discloses a device for optically inspecting and evaluating a sample comprising a first, second, and third illumination sources emitting light within a first, a second, and a third spectrum, in which the third is between the first and the second. Miller et al. further discloses components for combining the light emitted by the illumination sources to produce a probe beam output and one or more optical components for directing the beam and a detector for analyzing the reflected probe beam. (See Figure 1 components '10a-c, 11a-j, 12a-j, 13, 14a', Figure 4a components '163-164, 61')

In regards to claim 5, Miller et al. further discloses illumination sources that are light emitting diodes. (See Figure 1 '10a-j')

In regards to claim 8, Miller et al. discloses a method for optically inspecting and evaluating a sample which comprises using a first, second, and third illumination sources to generate light within three spectrums respectively where in the third spectrum is between the first and second spectra. Miller further discloses combining the light emitted by the first, second and third illumination sources to produce a probe beam output to be directed and reflected by a sample, and analyzing the reflected probe beam. (See Page 6 paragraph 60, Figure 1 components '10a-c, 11a-j, 12a-j, 13, 14a', Figure 4a components '163-164, 61')

In regards to claim 12, Miller et al. further discloses illumination sources that are light emitting diodes. (See Figure 1 '10a-j')

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 4, 6, 11, and 13-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Miller et al.

In regards to claims 4 and 11, Miller discloses an optical apparatus to be used to collimate the output using an achromatic lens system, which allows for rays given a propagation vector will image to the same point on the sample (page 4, paragraph 42). Thus, the optical components can be any necessary for combining the light. The examiner takes Official Notice that separate fiber optics and a conical mirror for combining the separate light sources are known as optical equivalents of the described fiber optics and lens optical components. Therefore it would be obvious to replace the lens/fiber optic with the mirror/fiber optic as a matter of design choice.

In regards to claims 6 and 13, Miller et al. discloses light sources, LEDs, that have a broad range of wavelength spectral emissions and that the light can be in any wavelength desired by the user (See page 3, paragraph 34); therefore it would be

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obvious to have 1st spectrum VIS and 2nd spectrum ultraviolet depending on the sample being measured.

In regards to claims 7 and 14, Miller et al. discloses that the light source can be any illumination source applicable such as lamps, lasers and LEDs. (See Pages 4-5, paragraph 46). The examiner takes Official Notice that deuterium, tungsten, and LED lamps are well known in the art as illumination sources that can emit light in the visible to ultraviolet range. Therefore it would be obvious to use these light sources as the illumination sources of Miller's device in order to illuminate a sample with these spectral ranges.

In regards to claims 15 and 18, Miller et al. discloses a method for optical inspection and evaluation of a sample which generates a broadband probe beam, supplements the beam with LEDs, directs the probe beam to be reflected by the sample, and analyzes the reflected beam. The method and design disclosed by Miller et al. allows the emitted light to be in any wavelength desired by the user and further discloses that the light source can be any illumination source desired including lamps and LEDs, therefore it would be obvious to have 1st spectrum VIS and 2nd spectrum ultraviolet depending on the sample being measured. The examiner takes Official Notice that deuterium, tungsten, and LED lamps are well known in the art as illumination sources that can emit light in the visible to ultraviolet range. Therefore it would be obvious to use these light sources as the illumination sources of Miller's device in order

to illuminate a sample with these spectral ranges. (See Page 2, paragraph 16-17, Page 3, paragraph 34, Figure 1)

In regards to claim 16, Miller et al. discloses an accumulation point optical fiber that receives the broadband light beam emitted by the light sources and combines the received beam. (See Figure 1)

In regards to claim 17, Miller et al discloses that the optical components can be any necessary for combining the light (page 4, paragraph 42). The examiner takes Official Notice that separate fiber optics and a conical mirror for combining the separate light sources are known as optical equivalents of the described fiber optics and lens optical components. Therefore it would be obvious to replace the lens/fiber optic with the mirror/fiber optic as a matter of design choice.

In regards to claims 19 and 22-23, Miller et al. discloses a light source that can be in any wavelength desired by the user (See page 3, paragraph 34), therefore it would be obvious to have 1st spectrum VIS and 2nd spectrum ultraviolet depending on the sample being measured. It is disclosed that the light source can be any illumination source desired including lamps and LEDs (See pages 4-5, paragraph 46). The examiner takes Official Notice that deuterium, tungsten, and LED lamps are well known in the art as illumination sources that can emit light in the visible to ultraviolet range. Therefore it would be obvious to use these light sources as the illumination sources of Miller's device in order to illuminate a sample with these spectral ranges.

In regards to claim 20, Miller et al. discloses an accumulation point optical fiber that receives the broadband light beam emitted by the light sources and combines the received beam. (See Figures 1, 4a)

In regards to claim 21, the optical components can be any necessary for combining the light (page 4, paragraph 42). The examiner takes Official Notice that separate fiber optics and a conical mirror for combining the separate light sources are known as optical equivalents of the described fiber optics and lens optical components. Therefore it would be obvious to replace the lens/fiber optic with the mirror/fiber optic as a matter of design choice.

Additional Prior Art

The prior art made of record and not relied upon is considered pertinent to the applicant's disclosure. The references listed in the attached form PTO-892 teach of other prior art that may anticipate or obviate the claims of the applicant's invention.

Conclusion

Official Notice

Several facts have been relied upon from the personal knowledge of the examiner about which the examiner took Official Notice in this Office Action mailed. Applicant must seasonably challenge well known statements and statements based on personal knowledge when they are made by the Board of Patent Appeals and Interferences. In re Selmi, 156 F.2d 96, 70

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USPQ 197 (CCPA 1946); In re Fischer, 125 F.2d 725, 52 USPQ 473 (CCPA 1942). See also In re Boon, 439 F.2d 724, 169 USPQ 231 (CCPA 1971) (a challenge to the taking of judicial notice must contain adequate information or argument to create on its face a reasonable doubt regarding the circumstances justifying the judicial notice). If applicant does not seasonably traverse the well-known statement during examination, then the object of the well-known statement is taken to be admitted prior art. In re Chevenard, 139 F.2d 71, 60 USPQ 239 (CCPA 1943). A seasonable challenge constitutes a demand for evidence made as soon as practicable during prosecution. Thus, applicant is charged with rebutting the well-known statement in the next reply after the Office action in which the well-known statement was made.

Fax/Telephone Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ali Allawi whose telephone number is **571 272 8285**. The examiner can normally be reached on Monday through Friday, 8am to 4pm.

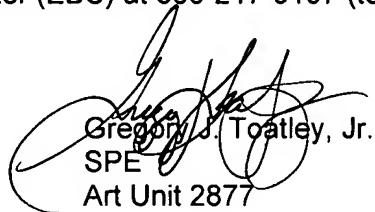
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gregory J. Toatley, Jr. can be reached on **571 272 2800 ext. 77**. The fax phone number for the organization where this application or proceeding is assigned is **571 273 8300**.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Ali Allawi



Gregory S. Toatley, Jr.
SPE
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